

**Notice of Allowability**

Application No.

09/287,304

Examiner

Jeff Piziali

Applicant(s)

YAMAMOTO ET AL.

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 19 September 2007.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 2 July 2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Jeff Piziali  
1 October 2007



## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

2. The drawings were received on 21 November 2001. These drawings are acceptable.

### *Allowable Subject Matter*

3. Claims 1-21 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The present invention comprises a liquid crystal display device. The prior art, *Nakajima (US 5,654,735 A)* discloses a liquid crystal display device including a data driver [Fig. 1; 13] and a gate driver [Fig. 1; 12], comprising an LCD panel [Fig. 1; 1] having two opposing flat surfaces, an area of one of the flat surfaces for displaying an image, and at least two edges opposing one another about the flat surfaces and outside of the display area; a substrate on which the LCD panel, the data driver and the gate driver are integrally formed; the data driver on a single edge of the at least two opposing edges of the LCD panel being divided into a plurality of blocks [Fig. 1; HSW<sub>n</sub>, HSW<sub>n+1</sub>, HSW<sub>n+2</sub>, etc.] so as to divide the LCD panel into sections arranged side by side, which simultaneously supply the LCD panel with display signals respectively supplied thereto, wherein each of the blocks includes a plurality of signal lines [Fig. 1; V<sub>n</sub>, V<sub>n+1</sub>, etc.]

that are connected to a plurality of data bus lines [Fig. 1; SIG1-SIG3,  $\emptyset_n$ ,  $\emptyset_{n+1}$ ,  $\emptyset_{n+2}$ , etc.] via analog switches [Fig. 1; HSW<sub>n</sub>, HSW<sub>n+1</sub>, HSW<sub>n+2</sub>, etc.], a number of the data bus lines being larger than a number of the signal lines, the display signals simultaneously being supplied from the plurality of signal lines [Fig. 1; V<sub>n</sub>, V<sub>n+1</sub>, etc.] to one of the plurality of blocks of the panel [Fig. 1; 1] via analog switches [Fig. 1; HSW<sub>n</sub>, HSW<sub>n+1</sub>, HSW<sub>n+2</sub>, etc.] simultaneously with supplying of the display signals to subsequent ones of the plurality of blocks of the panel (wherein display signals SIG1-SIG3 are illustrated in Figure 1 as all being concurrently connected/supplied to each and every block HSW<sub>n</sub>, HSW<sub>n+1</sub>, HSW<sub>n+2</sub>, etc.), and the blocks are arranged adjacent to each other along the single edge of the LCD panel, and each block includes a series of different signal lines (see Column 4, Line 1 - Column 5, Line 31).

However, as argued by the applicants (on Pages 10-18 of the Amendment filed 16 October 2006), the prior art does not expressly teach the subject matter of *each of said blocks includes a plurality of signal lines that are connected to a plurality of data bus lines via analog switches, a number of said data bus lines included in each of said blocks being larger than a number of said signal lines included in each of said blocks*, in combination with the remaining features and subject matter of the instantly claimed invention.

This distinct structural and operational arrangement has been incorporated into all four independent claims (i.e. claims 1 and 14-16), thereby rendering them allowable.

Any comments considered necessary by applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Piziali  
1 October 2007